furnace a series of time temperature relationships as follows:

5 minutes—1,000° F.
10 minutes—1,300° F.
30 minutes—1,550° F.
60 minutes—1,700° F.

(b) *''A'' Class divisions.* ''A'' Class divisions such as bulkheads and decks, means divisions that are composed of steel or an equivalent metal, suitably stiffened, and made intact with the main structure of the vessel, including the shell, structural bulkheads, or decks. They are constructed so that, if subjected to the standard fire test, they are capable of preventing the passage of flame and smoke for one hour. In addition, they are insulated with approved structural insulation, bulkhead panels, or deck coverings so that the average temperature on the unexposed side does not rise more than 139° C (250° F) above the original temperature, nor does the temperature at any one point, including any joint, rise more than 181° C (325° F) above the original temperature, within the time listed below:

Class A–60	60 minutes
Class A–30	30 minutes
Class A–15	15 minutes
Class A–0	0 minutes with no insulation requirement

(c) *''B'' Class bulkheads.* Bulkheads of the ''B'' Class shall be constructed with approved incombustible materials and made intact from deck to deck and to shell or other boundaries. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of flame for one-half hour.

(d) *''C'' Class divisions.* Bulkheads or decks of the ''C'' Class shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame.

(e) *Steel.* Where the term ''steel or other equivalent metal'' is used in this subpart, it is intended to require a material which, by itself or due to insulation provided, has structural and integrity qualities equivalent to steel at the end of the applicable fire exposure.

(f) *Approved material.* Where in this subpart approved materials are required, they refer to materials approved under the applicable subparts of subchapter Q (Specifications) of this chapter, as follows:

Deck Coverings	164.006
Structural Insulations	164.007
Bulkhead Panels	164.008
Incombustible Materials	164.009
Interior Finishes	164.012

(g) *Stairtower.* A stairtower is a stairway which penetrates more than a single deck within the same enclosure.

[CGFR 65–50, 30 FR 16671, Dec. 30, 1965, as amended by CGFR 67–90, 33 FR 1015, Jan. 26, 1968; CGD 74–127, 41 FR 3845, Jan. 26, 1976; CGD 75–032, 41 FR 17910, Apr. 29, 1976]

§ 32.57–10 Construction—TB/ALL.

(a) The hull, superstructure, structural bulkheads, decks, and deckhouses shall be constructed of steel. Alternately, the Commandant may permit the use of other suitable material in special cases, having in mind the risk of fire.

(b) Bulkheads of galleys, paint and lamp lockers, and emergency generator rooms shall be of ''A'' Class construction.

(c) The boundary bulkheads and decks separating the accommodations and control stations from cargo, and machinery spaces and from galleys, main pantries and storerooms other than small service lockers shall be of ''A'' Class Construction.

(d) The following conditions apply within accommodation, service, and control spaces:

(1) Corridor bulkheads in accommodation areas shall be of ''A'' or ''B'' Class intact from deck to deck Stateroom doors in such bulkheads may have a louver in the lower half.

(2) Stairtowers, elevator, dumbwaiter, and other trunks shall be of ''A'' Class construction.

(3) Bulkheads not already specified to be of ''A'' or ''B'' Class construction may be of ''A'', ''B'', or ''C'' Class Construction.

(4) The integrity of any deck in way of a stairway opening, other than a stairtower, shall be maintained by means of ''A'' or ''B'' Class divisions or bulkheads and doors at one level. The integrity of a stairtower shall be maintained by ''A'' Class doors at every level. The doors shall be of the self-closing type. No means shall be provided for locking such doors, except that crash doors or locking devices capable of being easily forced in an emergency may be employed provided a permanent and conspicuous notice to this

effect is attatched to both sides of the door. Holdback hooks or other means of permanently holding the door open will not be permitted. However, magnetic holdbacks operated from the bridge or from other suitable remote control positions are acceptable.

(5) Interior stairs, including stringers and treads shall be of steel or other suitable material having in mind the risk of fire. This is not intended to preclude the use of other material for nosing, walking surfaces, etc., over the steel.

(6) Except for washrooms and toilet spaces, deck coverings within accommodation spaces shall be of an approved type. However, overlays for leveling or finishing purposes which do not meet the requirements for an approved deck covering may be used in thicknesses not exceeding ⅜ of an inch.

(7) Except as provided in paragraph (d)(7–a) of this section, ceilings, linings, and insulation, including pipe and duct laggings, must be made of approved incombustible material.

(7–a) Combustible insulations and vapor barriers that have a maximum extent of burning of 122 millimeters (5 inches) or less when tested in accordance with American Society for Testing and Materials (ASTM) Specification D–1692, ''Rate of Burning or Extent of Burning of Cellular Plastics Using a Supported Specimen by a Horizontal Screen'', may be used within refrigerated compartments.

(8) Any sheathing, furring or holding pieces incidental to the securing of any bulkhead, ceiling, lining, or insulation shall be of approved incombustible materials.

(9) Bulkheads, linings and ceilings may have a combustible veneer within a room not to exceed 2 millimeters (.079 inch) in thickness. However, combustible veneers, trim, decorations, etc., shall not be used in corridors or hidden spaces. This is not intended to preclude the use of an approved interior finish or a reasonable number of coats of paint.

(e) Wood hatch covers may be used between cargo spaces or between stores spaces. Hatch covers in other locations shall be of steel or equivalent metal construction. Tonnage openings shall be closed by means of steel plates or equivalent metal construction.

(f) Nitrocellulose or other highly flammable or noxious fume-producing paints or lacquers shall not be used.

[CGFR 65–50, 30 FR 16671, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15268, Dec. 6, 1966; CGFR 67–90, 33 FR 1015, Jan. 26, 1968; CGD 74–127, 41 FR 3845, Jan. 26, 1976; CGD 95–028, 62 FR 51198, Sept. 30, 1997; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

Subpart 32.59—Minimum Longitudinal Strength and Plating Thickness Requirements for Unclassed Tank Vessels That Carry Certain Oil Cargoes—TB/ALL

§ 32.59–1 Minimum section modulus and plating thickness requirements—TB/ALL.

(a) As used in this section, *Rule* means the current Rules of the American Bureau of Shipping or other recognized classification society, as appropriate for the vessel's present service and regardless of the year the vessel was constructed.

(b) The requirements of this section apply to all in-service, unclassed tank vessels certificated to carry a pollution category I oil cargo listed in 46 CFR Table 30.25–1.

(c) For all vessels except those limited on their Certificate of Inspection to river routes only, the minimum midship section modulus must be—

(1) At least 90 percent of that required by Rule; or

(2) Where there is no specific Rule requirement, at least 100 percent of that which is necessary to meet the bending moment developed under a full load condition in still water, using a permissible bending stress of 12.74 kN/cm² (1.30 t/cm², 8.25 Ltf/in²).

(d) Within the 40-percent midship length, the average flange and web thicknesses of each longitudinal stiffener must be as follows:

(1) For deck and bottom stiffeners: at least 85 percent of Rule thickness, unless a buckling analysis demonstrates that lesser thicknesses can be safely tolerated. However, the average thickness must never be less than 80 percent of Rule thickness; and